

# Notice of Allowability

Application No.

09/581,924

Examiner

Karen A Canella

Applicant(s)

ATWELL ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_\_.
2. ☒ The allowed claim(s) is/are 66, 67, 69-72, 75-83, and 103-105, renumbered as 1-18.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
KARENA A. CANELLA PH.D  
PRIMARY EXAMINER

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Anne-Marie Yvon on December 29, 2004.

The application has been amended as follows:

This listing of claims replaced all prior versions and listing of the claims:

1-65. (Cancelled)

66. (Currently amended) The complex according to claim 69 or 103, wherein the binding region has a  $K_D$  for the antibody of the first species of less than  $10^{-6}$  M.

67. (Previously presented) The complex according to claim 66 in which the binding region has a  $K_D$  for the antibody of the first species of less than  $10^{-8}$  M.

68. (Cancelled)

69. (Currently amended) A complex formed between (i) an antibody or biologically active fragment thereof from a first species and (ii) a bifunctional molecule, the bifunctional molecule comprising a binding region of non-antibody origin which binds to the antibody of the first species, and a constant region from an antibody of a second species, the constant region comprising at least one  $C_H$  domain or an epitope thereof, wherein the bifunctional molecule is bound to the constant region of the antibody of the first species, wherein ~~The complex according to claim 103, in which the binding region~~ comprises a protein selected from the group consisting of [[,]] a mouse Fc  $\gamma$  receptor, histidine rich glycoprotein, *Streptococcal* protein G, *Staphylococcal aureus* protein A, [[and]] *Peptostreptococcus magnus* protein L, [[or a]] and antibody-binding fragments thereof.

70 (Previously presented) The complex according to claim 69, in which the binding region comprises fragment B of *Staphylococcus aureus* protein A.

71. (Currently amended) The complex according to claim ~~[[103]]~~ 69, in which the binding region comprises a mouse Fc  $\gamma$  receptor or fragment thereof.

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72. (Currently amended) The complex according to claim ~~[[103]]~~ 69, in which the binding region comprises histidine rich glycoprotein.

73-74. (Cancelled)

75. (Currently amended) The complex according to claim 69 or 103, wherein the constant region from the antibody of the second species comprises one or more constant domains from an IgM antibody.

76. (Previously presented) The complex according to claim 75, in which the constant region from the antibody of the second species comprises one or more C<sub>H</sub>3 $\mu$  domains.

77. (Currently amended) The complex according to claim 69 or 103, wherein the constant region from the antibody of the second species comprises one or more constant domains from an IgG antibody.

78. (Previously presented) The complex according to claim 77, in which the constant region from the antibody of the second species comprises one or more C<sub>H</sub>3 $\gamma$  domains.

79. (Currently amended) The complex according to claim 69 or 103, wherein the constant region from the antibody of the second species comprises one or more constant domains from an IgA antibody.

80. (Currently amended) The complex according to claim 69 or 103, wherein the constant region from the antibody of the second species comprises or consists of a non-naturally occurring combination of immunoglobulin C<sub>H</sub> domains or epitopes thereof.

81. (Currently amended) The complex according to claim 69 or 103, in which the antibody constant region consists of a single C<sub>H</sub> domain.

82. (Currently amended) The complex according to claim 69 or 103, in which the first species is a rat or mouse.

83. (Currently amended) The complex according to claim 69 or 103, wherein the second species is a human.

84-102. (Cancelled)

103. (Currently amended) A complex formed between (i) an antibody or biologically active fragment thereof from a first species and (ii) a bifunctional molecule, the bifunctional molecule comprising a binding region of non-antibody origin which binds to ~~the antibody of the first species or to~~ one or more non-naturally occurring groups provided ~~thereon~~ on the antibody

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of the first species, and a constant region from an antibody of a second species, the constant region comprising at least one C<sub>H</sub> domain or an epitope thereof, wherein the bifunctional molecule is bound to ~~the constant region of the antibody of the first species or to one or more non-naturally occurring groups provided thereon~~ on the constant region of the antibody of the first species, wherein the non-naturally occurring group is a biotin molecule and the binding region comprises streptavidin or a fragment thereof.

104. (Currently amended) The complex according to claim 69 or 103, wherein the binding region and the constant region from the antibody of the second species are linked directly or are separated by a linker molecule of between 1 and 20 amino acids in length.

105. (Cancelled)

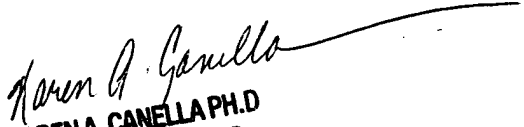
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen A Canella whose telephone number is (571)272-0828. The examiner can normally be reached on 10 a.m. to 9 p.m. M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Siew can be reached on (571)272-0787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karen A. Canella, Ph.D.

12/29/2004

  
KARENA. CANELLA PH.D  
PRIMARY EXAMINER